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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/714,047

11/13/2003

Gregor Dudziak

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27386

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05/24/2007

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EXAMINER

OLSEN, KAJ K

ART UNIT

PAPER NUMBER

1753

MAIL DATE

DELIVERY MODE

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/714,047

Applicant(s)

DUDZIAK ET AL.

Examiner

Kaj K. Olsen

Art Unit

1753

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 07 May 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-18 is/are allowed.
- 6) ☒ Claim(s) 19-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Drawings*

1. Applicant's correction of fig. 2 is approved and the examiner has withdrawn the outstanding objection to the drawings.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 19-22, 24, and 25 are rejected under 35 U.S.C. 102(b) as being anticipated by Sanchez et al (USP 4,758,320).
4. These claims remain rejected over the teaching of Sanchez for the reasons set forth in the previous office action. Applicant has traversed this rejection on the grounds that Sanchez does not teach nor suggest the use of restriction membranes to delimit the electrode spaces. This argument is apparently in reference to the fact that Sanchez delimits the electrodes from the diluate and concentrate spaces with the same type of membrane (i.e. an ultrafiltration semi-permeable membrane) that delimited the diluate and concentrate spaces. However, even if Sanchez utilized the same type of membranes for each, Sanchez stills read on the claimed invention because the claims never require the restriction membrane to be materially different from the ultrafiltration or microfiltration membranes. An ultrafiltration membrane (as taught by

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Sanchez) would read on a reasonable interpretation of the term “restriction membrane” because ultrafiltration membranes clearly restrict flow of larger particles. Furthermore, Sanchez has an embodiment where the membranes utilized for delimiting the electrode spaces are different. In particular, Sanchez teaches the use of ion-exchange membranes (14, 15) as well. See Example 4 starting on col. 6, l. 41. An ion-exchange membrane would also read on a reasonable interpretation of the term “restriction membrane” because ion-exchange membranes also clearly restrict flow of particular species. Applicant states that the restriction membranes of the instant invention typically have a much lower cutoff point than the separation membrane. That very well may be the case but applicant hasn’t claimed that the restriction membrane in any such manner. The examiner will not read such limitations on the restriction membrane from the specification into the claimed subject matter because that will unduly limit the scope of the applicant’s claims.

***Claim Rejections - 35 USC § 103***

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

6. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sanchez in view of Gritzner (USP 4,043,895).

7. This claim remains rejected for the reasons set forth in the previous office action.

Applicant’s argument against this rejection relies solely on applicant’s perceived failings of the earlier teaching of Sanchez. Because those arguments were not persuasive (see above), this argument is further unpersuasive.

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8. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sanchez in view of Ahlgreen et al (USP 4,043,896).

9. This claim remains rejected for the reasons set forth in the previous office action.

Applicant's argument against this rejection relies solely on applicant's perceived failings of the earlier teaching of Sanchez. Because those arguments were not persuasive (see above), this argument is further unpersuasive.

#### ***Response to Arguments***

10. Applicant's arguments filed 5-7-2007 have been fully considered but they are only partially persuasive. In particular, the examiner was persuaded by the arguments concerning method claims 1-18. Sanchez is drawn to electrofiltration whereas Gritzner is drawn to electrophoresis. Sanchez relies on pressure for its separation and only relies on the electrodes to prevent the macromolecules from migrating towards the membranes (col. 1, ll. 26-31), which is entirely different from the process of Gritzner where the electrodes are utilized to drive the desired macromolecules through the membranes. One possessing ordinary skill in the art would not combine these two teachings in the manner done so by the previous examiner to arrive at the method of claims 1-18.

11. However, the arguments concerning Sanchez against claims 19-26 were not persuasive for the reasons addressed above. As a preemptive note, although this examiner has withdrawn the combination of Sanchez and Gritzner for claims 1-18 above, the examiner does not believe the persuasive arguments against claims 1-18 apply to the use of Gritzner in claim 23 because Gritzner is solely being used for claim 23 for its teaching of heat exchangers for the electrode

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fluid and the heat exchangers of Gritzner are entirely applicable to the electrofiltration device of Sanchez.

*Allowable Subject Matter*

12. Claims 1-18 are allowed.

*Conclusion*

13. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kaj Olsen whose telephone number is (571) 272-1344. The examiner can normally be reached on Monday through Friday from 8:00 A.M. to 4:30 P.M..

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nam Nguyen, can be reached on 571-272-1342. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AU 1753  
May 21, 2007



**KAJ K. OLSEN**  
**PRIMARY EXAMINER**